

We claim:

- 1 1. A method of making a microstructure in a glass or plastic surface by hot-
- 2 forming technology, said method comprising the steps of:
 - 3 a) providing a forming tool comprising a base body (1), said base body (1)
 - 4 comprising an at least partially porous base material with an open pore structure;
 - 5 b) structuring a surface of a forming tool according to a negative of the
 - 6 microstructure to be produced in the substrate;
 - 7 c) pressing the forming tool surface structured during the structuring of
 - 8 step b) into a viscous glass or plastic substrate;
 - 9 d) during the pressing of step c), generating an under pressure that acts
 - 10 on the open pore structure of the base body (1) in order to draw glass or plastic
 - 11 material to the forming tool surface and thus help form the microstructure;
 - 12 e) after the microstructure has been formed in the substrate in steps c)
 - 13 and d), removing the forming tool from the viscous glass or plastic substrate; and
 - 14 f) during the removing of step e), generating an overpressure that acts on
 - 15 the open pore structure of the base body to assist in the removing.

- 1 2. The method as defined in claim 1, further comprising melting glass or plastic
- 2 material to form a melt and taking the viscous glass or plastic substrate from the
- 3 melt.

1 3. The method as defined in claim 1, further comprising providing a solid glass or
2 plastic substrate, heating the forming tool locally immediately prior to the
3 formation of the microstructure and applying the forming tool heated during the
4 heating to the solid glass or plastic substrate in a region to be structured to
5 plasticize the substrate material and form the viscous glass or plastic substrate.

1 4. A forming tool for making a microstructure in a glass or plastic surface by hot-
2 forming technology, said forming tool comprising a base body (1), an operative
3 layer (2) applied to a surface on one side of the base body and means (4,5) for
4 supplying or withdrawing air from another surface on another side of the base
5 body (1) opposite from the one side on which the operative layer (2) is applied,
6 wherein said base body (1) comprises a porous base material with an
7 open pore structure and said operative layer (2) comprises a gas-impermeable
8 material structured according to a negative of the microstructure to be produced
9 by the forming tool in order to form depressions or grooves (11) that extend
10 through the operative layer (2) to the base material with the open pore structure.

1 5. The forming tool as defined in claim 4, wherein said base body (1) consists
2 entirely of said porous base material with the open pore structure.

1 6. The forming tool as defined in claim 5, wherein said base body (1) has gas-
2 impermeable side walls (15).

1 7. The forming tool as defined in claim 4, wherein only a portion (1b) of said base
2 body (1) next to said operative layer (2) consists of said porous base material
3 with the open pore structure, while a remaining portion (1a) of the base body (1)
4 is gas-impermeable.

1 8. The forming tool as defined in claim 7, wherein said portion (1b) of the base
2 body (1) next to said operative layer (2) has gas-impermeable side walls (15).

1 9. The forming tool as defined in claim 4, consisting of a pressing roller or a press
2 tool.